10/657,495

=> FILE REG

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STRUCTURE FILE UPDATES: 23 MAY 2006 HIGHEST RN 885357-09-5 DICTIONARY FILE UPDATES: 23 MAY 2006 HIGHEST RN 885357-09-5

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html .

=> FILE HCAPL

FILE 'HCAPLUS' ENTERED AT 11:21:46 ON 24 MAY 2006
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FILE COVERS 1907 - 24 May 2006 VOL 144 ISS 22 FILE LAST UPDATED: 23 May 2006 (20060523/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> .D QUE

L8

STR

 $_{1}^{\text{Cb}} \sim _{2}^{\text{N}} = _{3}^{\text{N}} \sim _{4}^{\text{Cb}}$

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 2
CONNECT IS E2 RC AT 3
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 1
GGCAT IS UNS AT 4
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE L14 STR

VAR G1=N/O
VAR G2=5/11/21
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L16 . 131 SEA FILE=REGISTRY SSS FUL L8 AND L14

L19 STR

VAR G2=5/11/21/32 NODE ATTRIBUTES:

CONNECT IS E2 RC AT 23

CONNECT IS E2 RC AT 24

CONNECT IS E2 RC AT 25

CONNECT IS E2 RC AT 33

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L21 13 SEA FILE=REGISTRY SUB=L16 SSS FUL L19

L23 10 SEA FILE=HCAPLUS ABB=ON L21

=> D L23 BIB ABS IND HITSTR 1-10

L23 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:220216 HCAPLUS Full-text

DN 142:285299

TI Process for making silicone intraocular lens with blue light absorption properties using reactive dyes for hydrosilation

IN Lai, Yu-Chin; Ruscio, Dominic V.

PA USA

SO U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PAT	rent	NÖ.			KIN	D	DATE			APPI	ICAT	ION 1	NO.		D	ATE	
ΡI	US	2005	0550	91		A1	_	2005	0310	-	US 2	2003-	6577:	- - 81		2	0030	908
	AU	2004	2719	48		A1		2005	0324		AU 2	2004-	2719	48		2	0040	819
	CA	2536	730			AA		2005	0324		CA 2	2004-	2536	730		2	0040	819
	WO	2005	0256	32		A1		2005	0324		WO 2	2004-	US27	006		2	00408	819
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒŻ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	.GM,	HR,	HU,	ID,	IL,	·IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
			NO,	ΝZ,	OM,	PG,	PH,	ΡL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
		•	ТJ,	TM,	TN,	TR,	TT,	ΤZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
•		RW:	BW,	GH,	GM,	ΚE,	LS,	.MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
			AZ,	BY,	KG,	ΚZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
	•		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,

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SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     US 2006020338
                          Α1
                                20060126
                                             US 2005-235441
                                                                    20050926
     US 2006020340
                          Α1
                                20060126
                                             US 2005-235454
                                                                    20050926
     US 2006020337
                                            US 2005-235497
                          A1
                                20060126
                                                                    20050926
PRAI US 2003-657781
                                20030908
                          А
     WO 2004-US27006
                          W
                                20040819
AB
     A process for producing silicone intraocular lenses (IOLs) capable of
     absorbing blue light. Intraocular lenses so produced block blue light from
     reaching the retina of an eye implanted with the IOL. By blocking blue light
     from reaching the retina, the IOL thereby prevents potential damage to the
     retina.
IC
     ICM A61F002-14
INCL 623005160; 623004100; 623006600; 623920000; 427002240
CC
     63-7 (Pharmaceuticals)
ST
     silicone intraocular eye lens blue light absorption reactive dye
IT ·
    Light
        (blue; process for making silicone intraocular lens with blue light
        absorption properties using reactive dyes for hydrosilation)
ΙT
     Prosthetic materials and Prosthetics
        (implants; process for making silicone intraocular lens with blue light
        absorption properties using reactive dyes for hydrosilation)
IT
     Eye
        (lens, implants; process for making silicone intraocular lens with blue
        light absorption properties using reactive dyes for hydrosilation)
ΙT
     Coating materials .
     Coating process
     Hydrosilylation
     Intraocular lenses
     Optical absorption
     Reactive dyes
        (process for making silicone intraocular lens with blue light
        absorption properties using reactive dyes for hydrosilation)
ΙT
     Polysiloxanes, biological studies
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (process for making silicone intraocular lens with blue light
        absorption properties using reactive dyes for hydrosilation)
     7440-06-4, Platinum, biological studies
TT
                                              7440-06-4D, Platinum, complexes
     with divinyltetramethyldisiloxane/cyclovinylmethylsiloxane
                                                                   30110-75-9D,
     platinum complexes
     RL: CAT (Catalyst use); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (process for making silicone intraocular lens with blue light
        absorption properties using reactive dyes for hydrosilation)
     847161-51-7 847161-54-0 847161-57-3
     RL: CPS (Chemical process); PEP (Physical, engineering or chemical
    process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological
     study); PROC (Process); USES (Uses)
        (process for making silicone intraocular lens with blue light
        absorption properties using reactive dyes for hydrosilation)
                 2627-95-4
ΤТ
     2554-06-5
    RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (process for making silicone intraocular lens with blue light
        absorption properties using reactive dyes for hydrosilation)
TΤ
     847161-51-7 847161-54-0 847161-57-3
    RL: CPS (Chemical process); PEP (Physical, engineering or chemical
    process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological
     study); PROC (Process); USES (Uses)
```

(process for making silicone intraocular lens with blue light absorption properties using reactive dyes for hydrosilation)

RN 847161-51-7 . HCAPLUS

CN Carbamic acid, 2-propenyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)

$$H_2C = CH - CH_2 - NH - C - O - CH_2 - CH_2$$
 $N - CH_2 - CH_2 - O - C - NH - CH_2 - CH = CH_2$
 $Ph - N = N$

RN 847161-54-0 HCAPLUS

CN 3-Butenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)

$$H_2C$$
 $=$ CH_2 $CH_$

RN 847161-57-3 HCAPLUS

CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]- (9CI) (CA INDEX NAME)

L23 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:220187 HCAPLUS Full-text

DN 142:298999

TI High refractive index silicone-containing prepolymers with blue light absorption capability

IN Lai, Yu-Chin; Ruscio, Dominic V.

PA Bausch & Lomb Incorporated, USA

SO U.S. Pat. Appl. Publ., 7 pp. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	·				
PI	US 2005054802	A1	20050310	US 2003-657355	20030908

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US 7033391
                                20060425
                          B2
     AU 2004273431
                          Α1
                                20050324
                                            AU 2004-273431
                                                                    20040819
     CA 2536615
                          AA
                                20050324
                                            CA 2004-2536615
                                                                    20040819
     WO 2005026788
                          A1
                                20050324
                                           WO 2004-US27065
                                                                    20040819
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
PRAI US 2003-657355
                          Α
                                20030908
     WO 2004-US27065
                          W
                                20040819
AB
     A process for producing silicone-containing prepolymers capable of absorbing
     blue light for use in the production of relatively high refractive index
     polymeric compns. is described herein. Polymeric compns. so produced are
     useful in the production of ophthalmic devices such as for example intraocular
     lenses and corneal inlays. Thus, 51.55 g hexamethylcyclotrisiloxane and 25.98
     g dichloromethylsilane were reacted in the presence of hexamethylphosphoric
     triamide to give heptamethylcyclotetrasiloxane, 28.2 g of which was reacted
     with 32.2 g N-[2-[4-hydroxy-3-[(2- methylphenyl)azo]phenyl]ethyl]-3-butenamide
     to give a reactive cyclic dye compound, 3.02 g of the resulting dye compound
     was mixed with heptamethylphenylcyclotetrasiloxane, dimethylvinylsilyl-
     terminated dimethylpolysiloxane 73, octamethylcyclotetrasiloxane 4,473.6,
     1,3,5-trimethyl-1,3,5-triphenylcyclotrisiloxane 340, and potassium
     trimethylsilanoate 0.139 g and heated at 150-160° to give a
     dimethylvinylsilyl-terminated polysiloxane with Mn 88,600, refractive index
     >1.46, and yellow dye content 0.16%.
IC
     ICM C08L083-04
     ICS C08G077-04
INCL 528015000; X52-8 3.2; X52-8 3.3; X52-8 3.7; X52-486.6
     38-3 (Plastics Fabrication and Uses)
     Section cross-reference(s): 63
ST
     high refractive index silicone prepolymer blue light absorption; azo dye
     contg polysiloxane prepolymer prepn
ΙT
     Polysiloxanes, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (acrylic, dye-containing; preparation of high refractive index silicone-
containing
        prepolymers with blue light absorption capability)
IT
     Polysiloxanes, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (dye-containing; preparation of high refractive index silicone-containing
        prepolymers with blue light absorption capability)
IΤ
    Medical goods
        (ophthalmic; preparation of high refractive index silicone-containing
        prepolymers with blue light absorption capability)
IT
     Reactive dyes
        (polysiloxane containing; preparation of high refractive index silicone-
containing
        prepolymers with blue light absorption capability)
IT
     Acrylic polymers, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (polysiloxane-, dye-containing; preparation of high refractive index
        silicone-containing prepolymers with blue light absorption capability)
```

IT Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses) (polysiloxane-; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Polysiloxanes, uses

RL: TEM (Technical or engineered material use); USES (Uses) (polyurethane-; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Eye

Intraocular lenses

(preparation of high refractive index silicone-containing prepolymers with blue

light absorption capability)

IT 15721-05-8P, Heptamethylcyclotetrasiloxane 59942-04-0P,

Dimethylvinylsilyl-terminated polydimethylsiloxane 60162-06-3P,

 $1, 3- Diviny ltetramethyldisiloxane-octamethyl cyclotetrasiloxane copolymer \\847593-98-0P$

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT 847593-99-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of high refractive index silicone-containing prepolymers with

light absorption capability)

IT 75-54-7, Dichloromethylsilane 541-05-9, Hexamethylcyclotrisiloxane 847161-57-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of high refractive index silicone-containing prepolymers with

light absorption capability)

IT 847161-57-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of high refractive index silicone-containing prepolymers with

blue

blue

light absorption capability)

RN 847161-57-3 HCAPLUS

CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:220184 HCAPLUS Full-text

DN 142:285295

TI Novel reactive yellow dyes useful for ocular devices

IN Lai, Yu-Chin

PA USA

```
CODEN: USXXCO
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                    DATE
                         ----
PΙ
     US 2005054797
                                20050310
                          Α1
                                            US 2003-657495
                                                                    20030908
                                            AU 2004-272525
     AU 2004272525
                          Α1
                                20050324
                                                                    20040819
     CA 2536437
                          AA
                                20050324
                                            CA 2004-2536437
                                                                    20040819
     WO 2005026266
                          A1
                                20050324
                                          WO 2004-US27008
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
PRAI US 2003-657495
                          Α
                                20030908
     WO 2004-US27008
                         W
                                20040819
OS
     MARPAT 142:285295
AΒ
     The invention relates to novel azo-based reactive yellow dyes (e.g., N,N-
     bis(2-allylcarbamatoethyl)-(4'-phenylazo)aniline) and a process for
     manufacturing and using ocular devices having blue light absorption
     properties. Intraocular lenses so produced block blue light from reaching the
     retina of an eye implanted with the IOL. By blocking blue light from reaching
     the retina, the IOL thereby prevents potential damage to the retina. The
     ocular device is selected from the group consisting of contact lenses,
     keratoprostheses, capsular bag extension rings, corneal inlays, corneal rings
     and intraocular lenses.
     ICM C08F030-08
IC
INCL 526319000; 526279000
     63-7 (Pharmaceuticals)
    Section cross-reference(s): 37, 41
ST
     reactive yellow dye intraocular lense ocular device
ΙT
     Prosthetic materials and Prosthetics
       (implants; novel reactive yellow dyes useful for ocular devices)
IT
     Azo dyes
     Coating materials
     Contact lenses
     Intraocular lenses
     Reactive dyes
        (novel reactive yellow dyes useful for ocular devices)
    Polysiloxanes, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (novel reactive yellow dyes useful for ocular devices)
                                          847356-36-9P
ΙT
     2452-84-8P, C.I. Solvent Yellow 58
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
        (intermediate; novel reactive yellow dyes useful for ocular devices)
IT
     7440-06-4D, Platinum, cyclovinylmethylsiloxane complex
     RL: CAT (Catalyst use); USES (Uses)
        (novel reactive yellow dyes useful for ocular devices)
ΙT
     156048-34-9D, Dimethylsilanediol-diphenylsilanediol copolymer,
     vinyl-terminated
     RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological
```

U.S. Pat. Appl. Publ., 6 pp.

SO

study); USES (Uses)

(novel reactive yellow dyes useful for ocular devices)

- IT 51-67-2, p- β -Aminoethylphenol 95-53-4, o-Toluidine, reactions 1470-91-3, Vinylacetyl chloride 1476-23-9, Allyl isocyanate RL: RCT (Reactant); RACT (Reactant or reagent) (starting materials; novel reactive yellow dyes useful for ocular devices)
- IT 847161-51-7P, N,N-Bis-(2-allylcarbamatoethyl)-(4'-phenylazo)aniline 847161-54-0P, N,N-Bis-(2-vinylacetoxyethyl)-(4'-phenylazo)aniline 847161-57-3P

RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(yellow dyes; novel reactive yellow dyes useful for ocular devices)

IT 847161-51-7P, N,N-Bis-(2-allylcarbamatoethyl)-(4'-phenylazo)aniline 847161-54-0P, N,N-Bis-(2-vinylacetoxyethyl)-(4'-phenylazo)aniline 847161-57-3P

RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(yellow dyes; novel reactive yellow dyes useful for ocular devices)

RN 847161-51-7 HCAPLUS

CN Carbamic acid, 2-propenyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)

$$H_2C$$
 $=$ CH $=$ CH_2 $=$ NH $=$ CH_2 $=$ CH

RN 847161-54-0 HCAPLUS

CN 3-Butenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)

$$H_2C$$
 $=$ CH_2 $CH_$

RN 847161-57-3 HCAPLUS

CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]- (9CI) (CA INDEX NAME)

2004:267394 HCAPLUS AN Full-text 140:305380 DN ΤI Mixtures of reactive polyazo dyes, their production and their use IN Russ, Werner; Ebenezer, Warren James; Hutchings, Michael Gordon PA Dystar Textilfarben G.m.b.H. & Co. Deutschland K.-G., Germany SO PCT Int. Appl., 30 pp. CODEN: PIXXD2 DT Patent English LA FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE PΙ WO 2004026966 20040401 WO 2003-EP10190 A1 20030913 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2003270191 **A**1 20040408 AU 2003-270191 20030913 PRAI GB 2002-21907 Α 20020920 WO 2003-EP10190 W 20030913 OS MARPAT 140:305380 GΙ

ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN

L23

AB The invention refers to mixts. of water soluble reactive dyes comprising one or more of I (E = disazo chromophore; G = N, substituted carbon; X = halogenated N heterocycle; Y = halogen, quaternary ammonium; m, n = 2-6) and one or more of II (E, G, X, Y, m, n as for I). The dyes are useful for cellulosic and amide group-containing textile substrates. In an example,

diethylenetriamine was condensed (1:2) with a dichlorotriazinyl navy dye followed with acetic anhydride to give a mixture of 2 reactive polyazo dyes.

IC ICM C09B062-09

ICS C09B062-25; C09B062-03; C09B067-22

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 28, 40

ST reactive polyazo dye prodn

IT Reactive azo dyes

(production of mixts. of reactive polyazo dyes)

ΙT 676347-71-0P 676347-72-1P 676347-73-2P 676347-74-3P 676347-75-4P 676347-76-5P 676347-77-6P 676347-78-7P 676347-79-8P 676347-80-1P 676347-81-2P 676347-82-3P 676347-83-4P 676347-84-5P 676347-85-6P 676347-86-7P 676347-90-3P 676347-87-8P 676347-88-9P 676347-89-0P 676347-95-8P 676347-91-4P 676347-92-5P 676347-93-6P 676347-94-7P 676347-96-9P 676347-97-0P 676347-98-1P 676347-99-2P 676348-00-8P 676348-01-9P 676348-02-0P 676348-03-1P 676348-04-2P 676348-05-3P 676348-06-4P 676348-07-5P 676348-08-6P 676348-09-7P 676348-10-0P 676348-12-2P 676348-11-1P 676348-13-3P 676348-14-4P 676348-15-5P 676348-17-7P 676348-18-8P 676348-19-9P 676348-20-2P 676348-21-3P 676348-22-4P 676348-97-3P 676348-98-4P 676348-99-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye; production of mixts. of reactive polyazo dyes)

IT 108-24-7, Acetic anhydride 111-40-0, Diethylenetriamine 64253-81-2 RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; production of mixts. of reactive polyazo dyes) 676348-05-3P 676348-09-7P 676348-99-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye; production of mixts. of reactive polyazo dyes)

RN 676348-05-3 HCAPLUS

ΙT

CN 2-Butenoic acid, 4-[[2-[[4-[[3-[[8-amino-1-hydroxy-7-[(4-methyl-2-sulfophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]-4-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl][2-[[4-[[3-[[8-amino-1-hydroxy-7-[(4-methyl-2-sulfophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]-4-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]ethyl]amino]ethyl]amino]-4-oxo-(9CI) (CAINDEX NAME)

PAGE 1-A

PAGE 1-C

RN 676348-09-7 HCAPLUS

CN 2-Butenoic acid, 4-[[2-[[4-[[3-[[8-amino-1-hydroxy-3,6-disulfo-7-[(2-sulfophenyl)azo]-2-naphthalenyl]azo]-4-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl][2-[[4-[[3-[[8-amino-1-hydroxy-3,6-disulfo-7-[(2-sulfophenyl)azo]-2-naphthalenyl]azo]-4-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]ethyl]amino]ethyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 676348-99-5 HCAPLUS

CN 2-Butenoic acid, 4-[[3-[[4-[[3-[[8-amino-7-[(1,5-disulfo-2-naphthalenyl]azo]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-4-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl][2-[[4-[[3-[[8-amino-7-[(1,5-disulfo-2-naphthalenyl)azo]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-4-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]ethyl]amino]propyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 1-C

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:250328 HCAPLUS Full-text

DN 140:294892

TI Photosensitive materials showing matrix volume change and method for manufacture thereof

IN Takagi, Hideki; Watanabe, Osamu

PA Toyota Central Research and Development Laboratories, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ΡI	JP 2004093996	A2	20040325	JP 2002-256299	20020902	
PRAT	JP 2002-256299		20020902			

AB The title material contains light-sensitive materials, which change the volume according to irradiated light, in the matrix made of Si and/or metal and oxygen, wherein the light-sensitive material bounds to the matrix material with covalent bonds with ≥50 % of the condensation degree. The material shows the improved sensitivity without deteriorating the material characteristics and is suitable for optical recording.

IC ICM G03C001-725

ICS C08G077-26; C08G079-00; C09B029-08; C09B043-20; C09B069-00; G11B007-24; C07F007-21

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photosensitive showing matrix vol manuf

IT Light-sensitive materials

Optical recording materials

(photosensitive materials showing matrix volume change and method for manufacture thereof)

IT 1476-23-9 2734-52-3, Disperse Red 19 2872-52-8, Disperse Red 1 10025-78-2 24801-88-5, 3-(Triethoxysilyl)propyl isocyanate

RL: RCT (Reactant); RACT (Reactant or reagent)

(photosensitive materials showing matrix volume change and method for manufacture thereof)

IT 67-56-1P, Methanol, reactions 675129-68-7P 675129-69-8P
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)

(photosensitive materials showing matrix volume change and method for manufacture thereof)

IT 147274-64-4P 675129-70-1P 675129-71-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Úses)

(photosensitive materials showing matrix volume change and method for manufacture thereof)

IT 675129-68-7P

RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(photosensitive materials showing matrix volume change and method for manufacture thereof)

RN 675129-68-7 HCAPLUS

CN Carbamic acid, 2-propenyl-, 2-[ethyl[4-[(4-nitrophenyl)azo]phenyl]amino]et hyl ester (9CI) (CA INDEX NAME)

L23 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:781837 HCAPLUS Full-text

DN 123:172627

TI Disazo and tetrakisazo dyes, their preparation and use

IN Hassenrueck, Karin; Reinhardt, Karl-Heinz; Wild, Peter; Wunderlich, Klaus

PA Bayer A.-G., Germany

SO Ger. Offen., 29 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PAN.	CNII					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ΡI	DE 4340354	A1	19950601	DE 1993-4340354	19931126	
	EP 657506	A1	19950614	EP 1994-117935	19941114	
	EP 657506	B1	19980916	*	•	
	R: CH, DE, FR,	GB, IT,	, LI ,		•	
	US 5646257	Α	19970708	US 1994-342295	19941118	
	JP 07196931	A2	19950801	JP 1994-309449	19941121	
PRAI	DE 1993-4340354	Α	19931126			
os	MARPAT 123:172627			•		
O.T.						

GΙ

$$\begin{array}{c|c}
R & OH \\
\hline
(SO_3H)_n & N=N \\
\hline
(SO_3H)_n & OH \\
\hline
(SO_3H)_n$$

The dyes, especially useful in water-based jet-printing inks, have the structure I [R = doubling group, [CH:CHC6H3(SO3H)]mNHXR2YXR3R4; R1 = H, (un)substituted C1-4-alkyl or C2-5-acyl or Ph or Bz; R2-R4 = halo, OH, C1-6-alkyl, C1-6-alkoxy, amino; X = s-triazine-2,4,6-triyl; Y = bridging group; m, n = 0, 1]. Thus, 2,4-H2N(AcNH)C6H3SO3H was diazotized and coupled with 8,2-H2NC10H6SO3H, the resulting monoazo amine was diazotized and coupled with 5,3,2,7-HO(H2N)C10H4(SO3H)2, and the product was deacetylated to give a disazo amine intermediate (II). II was coupled with terephthaloyl chloride to give a I with R = p-C6H4(CO)2, R1 = H, and n = 1, which, as the Na salt, gave a 1.5% aqueous solution which provided light- and wetfast deep black shades on paper by ink-jet printing.

IC ICM C09B035-56

ICS C09B031-072; C09B056-04; C09B056-08; C09B043-136; C09B062-09; C09B067-26; D06P001-39; D06P003-60; C09D011-00; C07C309-50; C07C241-00

ICA D06P003-32; C07C309-46; C07C309-47; C07C245-12; C07D307-68

ICI C07D403-04, C07D251-54; C07D295-125

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 42

ST azo dye jet printing ink; tetrakisazo dye paper

IT Paper

(preparation of black polyazo dyes for)

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IT
     Dyes, azo
        (preparation of black polyazo dyes for paper and for jet-printing inks)
IT
        (jet-printing, preparation of black polyazo dyes for)
ΙT
     90-40-4, RR acid 119-28-8, 8-Amino-2-naphthalenesulfonic acid
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (coupling component; preparation of black polyazo dyes for paper and for
        jet-printing inks)
     88-64-2, 4-Acetamido-2-aminobenzenesulfonic acid
ΙT
                                                        96-78-6,
     5-Acetamido-2-aminobenzenesulfonic acid
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (diazo component; preparation of black polyazo dyes for paper and for
        jet-printing inks)
IT
     167489-54-5P
                    167489-55-6P
                                   167489-56-7P '
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
        (intermediate; preparation of black polyazo dyes for paper and for
        jet-printing inks)
ΙT
     167489-45-4P
                    167489-46-5P
                                   167489-47-6P
                                                  167489-48-7P
                                                                 167489-49-8P
                    167489-51-2P
                                   167489-52-3P 167489-53-4P
     167489-50-1P
     168758-96-1P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (preparation of black polyazo dyes for paper and for jet-printing inks)
     81-11-8, 4,4'-Diamino-2,2'-stilbenedisulfonic acid
IT
                                                          100-20-9
     1,4-Benzenedicarbonyl dichloride
                                        108-31-6, 2,5-Furandione, reactions
                                   4067-16-7, Pentaethylenehexamine
     108-77-0, Cyanuric chloride
     4461-39-6, N-(2-Hydroxyethyl)-1,3-propanediamine
                                                        5308-25-8,
     N-Ethylpiperazine
                         17026-77-6, 4-Acetamido-4'-aminostilbene-2,2'-
     disulfonic acid
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of black polyazo dyes for paper and for jet-printing inks)
IT
     167489-53-4P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (preparation of black polyazo dyes for paper and for jet-printing inks)
RN
     167489-53-4 HCAPLUS
CN
     3,6,9,12,15-Pentaazanonadec-17-en-19-oic acid, 1-[[4,6-bis[[4-[2-[4-[[4-
     [(7-amino-1-hydroxy-3,6-disulfo-2-naphthalenyl)azo]-6-sulfo-1-
     naphthalenyl]azo]-2-sulfophenyl]ethenyl]-3-sulfophenyl]amino]-1,3,5-
     triazin-2-yl]amino]-12-(3-carboxy-1-oxo-2-propenyl)-16-oxo- (9CI) (CA
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INDEX NAME)

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L23 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN
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AN 1974:28434 HCAPLUS Full-text

DN 80:28434

TI New intermediates and dyes for synthetic polymer fibers. Derivatives of 2-chloro-4-nitro-4'-(N- β -hydroxyethyl-N- β -cyanoethylamino)azobenzene

AU Al-Kassim, Salwa; Peters, Arnold T.

CS Sch. Colour Chem., Univ. Bradford, Bradford, UK

SO Journal of the Society of Dyers and Colourists (1973), 89(10), 359-63 CODEN: JSDCAA; ISSN: 0037-9859

DT Journal

LA English

- Dyes(36) for polyesters prepared by condensation of I (R = H) with carboxylic acid chlorides, sulfonyl chlorides, isocyanates, isothiocyanates, chloroformates, and miscellaneous reactive halogen compds. and purified by preparative layer chromatog. had good light- and sublimation fastness. In general, the specific nature of the reactant was not significant, although introduction of aryl or cycloalkyl groups into the the R group tended to increase sublimation fastness. For example, I (R = CO2Ph) had 6-7 lightfastness value as determined in the standard manner on a Xenotest Model 450. The sublimation fastness values as determined on the Fixotest apparatus were 220, 200 and 180.deg. at 0.1, 0.5, and 2.5% depths, resp. The dyeing properties of all the dyes, on secondary cellulose acetate, were generally poorer than those of I(R = H).
- CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST polyester fiber dye; azobenzene disperse dye; cellulose acetate fiber dyeing; fastness azobenzene disperse dye

IT Dyes, azo

([(chloronitrophenyl)azo][(cyanoethyl)(hydroxyethyl)amino]benzene ester derivs., dyeing and fastness properties on acetate and polyester fibers)

IT Acetate fibers

Polvester fibers

RL: PROC (Process)

(dyeing of, with [(chloronitrophenyl)azo][(cyanoethyl)(hydroxyethyl)ami
no]benzene ester derivs., fastness of)

IT Ultraviolet and visible spectra

(of [(chloronitrophenyl)azo][(cyanoethyl)(hydroxyethyl)amino]benzene
ester derivs.)

IT Dyeing

(of acetate and polyester fibers, with [(chloronitrophenyl)azo][(cyanoe
thyl)(hydroxyethyl)amino]benzene ester derivs.)

ΙT	6021-61-0	15087-68-0	51083-72-8	51083-73-9	51083-74-0	51083-75-1
	51083-76-2	51083 - 77-3	51083-78-4	51083-79-5	51083-80-8	
	51083-81-9	51083-82-0	51083-83-1	51083-84-2	51083-85-3	
	51083-86-4	51083-87-5	51083-88-6	51083-89-7	51083-90-0	
	51083-91-1	51083-92-2	51083-93-3	51083-94-4	51083-95-5	
	51083-96-6	51083-97-7	51083-98-8	51083-99 - 9	51084-00-5	

51084-01-6 51084-02-7 51094-59-8 51094-60-1 RL: PRP (Properties) (dyeing properties and spectra of) ΤТ 75-36-5 57-06-7 79-03-8 79-04-9 86-84-0 98-09-9 98-88-4 103-71-9 103-72-0 103-80-0 109-90-0 121-17-5 501-53-1 541-41-3 542-85-8 551-06-4 622-78-6 627-11-2 701-99-5 1448-87-9 1476-23-9 1885-14-9 1942-61-6 2257-09-2 2719-27-9 2812-73-9 2937-50-0 3173-53-3 3867-55-8 5130-24-5 42814-50-6 RL: RCT (Reactant); RACT (Reactant or reagent) (esterification by, of [(chloronitrophenyl)azo][(cyanoethyl)(hydroxyeth yl)amino]benzene) 6657-33-6 IT RL: RCT (Reactant); RACT (Reactant or reagent) (esterification of, dyeing and fastness properties on acetate and polyester fibers in relation to) 16499-88-0 IT 5332-73-0 RL: RCT (Reactant); RACT (Reactant or reagent) (imidation by, of trimellitic acid chloride azo dye derivs.) ΙT 51083-79-5 RL: PRP (Properties) (dyeing properties and spectra of) RN 51083-79-5 HCAPLUS CN Carbamic acid, 2-propenyl-, 2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl](2cyanoethyl)amino]ethyl ester (9CI) (CA INDEX NAME)

L23 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN AN 1970:457153 HCAPLUS Full-text

DN 73:57153

TI Water-insoluble azo dyes

PA Cassella Farbwerke Mainkur A.-G.

SO Fr., 15 pp. CODEN: FRXXAK

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	FR 1582454		19690926	FR	19680927		
	DE 1644126			DE .			
	GB 1223137			GB .			
PRAI	DE		19670930				

GI For diagram(s), see printed CA Issue.

AB Water-insol. azo dyes (I) with improved sublimation fastness, useful for dyeing polyesters and cellulose acetate textiles, are prepared As an example, I (R = Br), m. 118-20°, scarlet on polyester and cellulose acetate fibers, was prepared by coupling diazotized 2,4-Br(O2N)C6H3NH2 with PhN(CH2CH2CN)CH2CH2O2CNHCH2CH:CH2, or by treating 4,2-O2NBrC6H3N:NC6H4N(CH2CH2CN)CH2CH2OH-4 with CH2:CHCH2NCO. Similarly prepared

were the following I (R, m.p., and shade given): H, $97-8^{\circ}$, orange; CN, $111-13^{\circ}$, -.

IC CO9B

CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST polyester fibers dyeing; cellulose acetate fibers dyeing; azo mono dyes

IT Dyes, azo

([(hydroxyethyl)[(nitrophenyl)azo]anilino]propionitrile allylcarbamate
(ester) derivs., polyester fibers)

IT Fiber, polyester, uses and miscellaneous

RL: USES (Uses)

(dyes for, [(hydroxyethyl)[(nitrophenyl)azo]anilino]propionitrile
allylcarbamate (ester) derivs. as)

IT Carbamic acid, allyl-, ester with 3-[N-(2-hydroxyethyl)-p-[(pnitrophenyl)azo]anilino]propionitrile

Propionitrile, 3-[N-(2-hydroxyethyl)-p-[(p-nitrophenyl)azo]anilino]-, allylcarbamate (ester)

IT 26424-49-7P 28824-51-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)

IT 26424-49-7P 28824-51-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)

RN 26424-49-7 HCAPLUS

CN Carbamic acid, allyl-, ester with 3-[p-[(2-bromo-4-nitrophenyl)azo]-N-(2-hydroxyethyl)anilino]propionitrile (8CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

RN 28824-51-3 HCAPLUS

CN Carbamic acid, allyl-, ester with 2-[[p-[(2-cyanoethyl)(2-hydroxyethyl)amino]phenyl]azo]-5-nitrobenzonitrile (8CI) (CA INDEX NAME)

L23 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1964:60780 HCAPLUS Full-text

DN 60:60780

OREF 60:10643c-d

TI Reaction of $\alpha\beta\text{-unsaturated}$ acid chlorides with alcohols in the presence of tertiary amines

```
ΑU
     Hickmott, P. W.
CS
     Roy. Coll. Adv. Technol., Salford, UK
SO
     Journal of the Chemical Society (1964), (Mar.), 883-7
     CODEN: JCSOA9; ISSN: 0368-1769
DT
     Journal
LA
     Unavailable
OS
     CASREACT 60:60780
AB
     The reaction of acryloyl chloride with alcs. in the presence of pyridine has
     been shown to give the water-soluble 1-(2-alkoxycarbonyl)ethylpyridinium
     chloride, as the main product, in addition to the alkyl acrylate of other
     tertiary amines (quinolines, Et3N, PhCH2NMe2, and 4-methylmorpholine, but not
     aromatic amines, such as PhNMe2) give similar H2O-soluble adducts. A
     mechanism for this reaction has been proposed.
CC
     37 (Heterocyclic Compounds (One Hetero Atom))
ΙT
     Chlorides
        (acid, reaction of \alpha,\beta-unsatd., with alcs. in presence of
        tertiary amines)
IT
     Amines
        (alc. reaction with \alpha, \beta-unsatd. acid chlorides in presence
        of tertiary)
IT
     Alcohols
        (reactions of, with \alpha,\beta-unsatd. acid chlorides in presence
        of tertiary amines)
TT
     Ammonium, (2-carboxyethyl)triethyl, chloride, 2-[N-methyl-p-[(p-
        nitrophenyl)azo]anilino]ethyl ester
     Ammonium, (3-carboxypropyl)dimethylphenyl, chloride, 2-[N-methyl-p-[(p-
        nitrophenyl)azo]anilino]ethyl ester
     Pyridinium, 1-(1-carboxyethyl)-, nitrate, 2-[N-methyl-p-[(p-
        nitrophenyl)azo]anilino]ethyl ester
ΙT
     91959-33-0, Cinnamamide, \alpha-cyano-p-[(2-hydroxyethyl)methylamino]-
        (esters)
ΙT
     79-10-7, Acrylic acid, esters with \alpha-cyano-p-[(2-
     hydroxyethyl) methylamino] cinnamamide
                                            79-41-4, Methacrylic acid, esters
     with \alpha-cyano-p-[(2-hydroxyethyl)methylamino]cinnamamide
                                                                  625-38-7,
     3-Butenoic acid, esters with \alpha-cyano-p-[(2-
     hydroxyethyl) methylamino] cinnamamide
                                             3724-65-0, Crotonic acid, esters
     with \alpha-cyano-p-[(2-hydroxyethyl)methylamino]cinnamamide
     91959-33-0, Cinnamamide, \alpha-cyano-p-[(2-hydroxyethyl)methylamino]-
     93809-45-1, Acrylic acid, 2-chloro-, 2-[N-methyl-p-[(p-
     nitrophenyl)azo]anilino]ethyl ester 93994-24-2, Propionic acid,
     3-bromo-, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
     93994-52-6, Propionic acid, 2-chloro-, 2-[N-methyl-p-[(p-
     nitrophenyl)azo]anilino]ethyl ester 94163-92-5, Propionic acid, 3-iodo-,
     2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
                                                               94332-35-1,
     Acrylic acid, trichloro-, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl
             95125-60-3, Propionic acid, 3-chloro-, 2-[N-methyl-p-[(p-
     nitrophenyl)azo]anilino]ethyl ester
                                             95166-98-6, Acrylic acid,
     2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
                                                               95956-04-0,
     Cinnamic acid, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester 97078-82-5, 3-Butenoic acid, 2-[N-methyl-p-[(p-
     nitrophenyl)azo]anilino]ethyl ester
                                             100736-47-8, Pyridinium,
     1-(2-carboxypropyl)-, chloride, ester with \alpha-cyano-p-[(2-
     hydroxyethyl) methylamino] cinnamamide
                                            100768-79-4, 4-(2-Carboxyethyl)-4-
     methylmorpholinium chloride, 2-[N-methyl-p-[(p-
     nitrophenyl)azo]anilino]ethyl ester
                                            100771-57-1, Pyridinium,
     1-(2-carboxy-1-methylethyl)-, chloride, ester with \alpha-cyano-p-[(2-
     hydroxyethyl)-methylamino]cinnamamide 100978-46-9, Pyridinium,
     1-(2-carboxyethyl)-, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
```

100978-47-0, Pyridinium, 1-(2-carboxyethyl)-, nitrate, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester 100997-06-6, Ammonium, (2-carboxyethyl)triethyl, chloride, ester with α -cyano-p-[(2-hydroxyethyl)methylamino]cinnamamide Pyridinium, 1-(2-carboxyethyl)-, bromide, 2-[N-methyl-p-[(pnitrophenyl)azo]anilino]ethyl ester 101521-77-1, Pyridinium, 1-(2-carboxyethyl)-, iodide, 2-[N-methyl-p-[(pnitrophenyl)azo]anilino]ethyl ester 101521-83-9, Pyridinium, 1-(1-carboxyethyl)-, chloride, 2-[N-methyl-p-[(pnitrophenyl)azo]anilino]ethyl ester 103651-73-6, 1-(2-Carboxyethyl)quinolinium chloride, 2-[N-methyl-p-[(pnitrophenyl)azo]anilino]ethyl ester 104878-93-5, Pyridinium, 1-(2-carboxy-2-chloroethyl)-, nitrate, 2-[N-methyl-p-[(pnitrophenyl)azo]anilino]ethyl ester 736098-02-5, Pyridinium, 1-(2-carboxyethyl)-, ester with α -cyano-p-[(2hydroxyethyl) methylamino] cinnamamide (preparation of) 97078-82-5, 3-Butenoic acid, 2-[N-methyl-p-[(pnitrophenyl)azo]anilino]ethyl ester '(preparation of) 97078-82-5 HCAPLUS 3-Butenoic acid, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester (7CI) (CA INDEX NAME)

IT

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· L23 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN 1964:60779 HCAPLUS Full-text ΑN DN 60:60779 OREF 60:10642g-h,10643a-c Studies in the 4-phenylpiperidine series. VI. N-Substituted derivatives of 4-phenyl-4-formylpiperidine having strychnine-like activity ΑU Chiavarelli, S.; Iorio, M. A.; Longo, V. G. CS Univ. Rome SO Farmaco, Edizione Scientifica (1964), 19(1), 14-29 CODEN: FRPSAX; ISSN: 0430-0920 DT Journal LA Unavailable GΙ For diagram(s), see printed CA Issue. AΒ

AB cf. CA 55, 13427a. The following I obtained from I (R = H) by conventional methods in 40-97% yields (R, b.p./mm., m.p., and nD temperature, and m.p. of picrate, hydrochloride, or MeI given): Me, 95-7°/0.1, 29-30°, 1.5460/21°, picrate 164°; Et, 90-5°/0.1, 35-7°, 1.5360/22°, -; Pr, 97-9°/0.1, 29°, 1.5340/22°, MeI 214°; iso-Pr, 91-3°/0.1, 63°, 1.5380/23°, MeI 188°; Bu, 103-7°/0.1, -, 1.5270/23°, MeI 198°; CH2:CHCH2, 99-101°/0.1, -, 1.5393/29°, -; β-cyanoethyl, 153-6°/0.15, 51°, 1.5512/22°, HCl 169-70°; γ-cyanopropyl, 165-70°/0.1, -, 1.5559/23°, -; β-hydroxyethyl, 139-42°/0.1, -, 1.5571/20° -; β-dimethylaminoethyl, 125-7°/0.1, 46°, -, dipicrate 176-7°; γ-dimethylaminopropyl, 130-5°/0.12, -, 1.5244/23° dipicrate 224-5°; β-diethylaminopropyl, 133-8°/0.1, -, 1.5295/18°, di-HCl (decomposition); γ-diethylaminopropyl, 133-8°/0.1, -, 1.5244/23°, dipicrate 199°; β-

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dibenzylaminoethyl, 205-10^{\circ}/0.1, 86^{\circ}, -, dipicrate 136-7^{\circ}; \beta-benzylaminoethyl,
-, -, -, di-HCl 227°; \beta-piperidinoethyl, 138-40°/0.08, 78°, -, di-HCl 267°
(decomposition); \beta-morpholinoethyl, 148-52°/0.1, 69-70°, -, di-HCl 269°
(decomposition); N,N-dimethylcarbamoylmethyl, 160-3°/0.15, 107°, -, -; N,N-
diethylcarbamoylmethyl, 160-4°/0.1, 68°, -, MeI 169°; dimethylaminoacetyl,
145-8°/0.08, 59°, -, -; diethylaminoacetyl, 161-6°/0.15, 48-50°, 1.5355/22°,
MeI 172°; dipropylaminoacetyl, 162-8°/0.1, -, 1.5505/20°, picrate 139°; diethylaminopropionyl, 158-63°/0.08, -, 1.5696/20°, -; dipropylaminopropionyl,
156-60°/0.08, -, 1.5548/20°, -. Infrared spectra of I in Nujol solution were
determined and discussed. None of the N-substituted derivs. of I showed a
greater strychnine-like activity than the N-Me compound Increase in length of
the alkyl group, unsatn., and nitrile or amino groups decreased or abolished
activity.
37 (Heterocyclic Compounds (One Hetero Atom))
Amino group
Cyano group
   (4-phenylisonipecotaldehyde derivs. containing, strychnine-like activity in
   relation to)
Chains (chemical)
   (length of, of 4-phenylisonipecotaldehyde derivs., strychnine-like
   activity and)
Spectra, infrared
   (of 4-phenylisonipecotaldehyde derivs.)
Ammonium, (2-carboxyethyl)triethyl, chloride, 2-[N-methyl-p-[(p-
  nitrophenyl)azo]anilino]ethyl ester
Ammonium, (3-carboxypropyl)dimethylphenyl, chloride, 2-[N-methyl-p-[(p-
  nitrophenyl)azo]anilino]ethyl ester
Benzanilide, 3',4'-dihloro-3,4,5-trimethoxy-
Pyridinium, 1-(1-carboxýethyl)-, nitrate, 2-[N-methyl-p-[(p-
  nitrophenyl)azolanilinolethyl ester
57-24-9, Strychnine
  (4-phenylisonipecotaldehyde derivs. with activity of)
771-99-3, Piperidine, 4-phenyl-
   (derivs.)
6952-94-9, Isonipecotaldehyde, 4-phenyl-
   (derivs., with strychnine-like activity)
41616-43-7, Ethanol, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]-
91959-33-0, Cinnamamide, \alpha-cyano-p-[(2-hydroxyethyl)methylamino]-
   (esters)
1201-91-8, Benzaldehyde, p-[(2-hydroxyethyl)methylamino]-
Isonipecotaldehyde, 1-methyl-4-phenyl- 6952-94-9, Isonipecotaldehyde,
           10286-75-6, Benzanilide, 3',4'-dichloro-
Nicotinanilide, 3',4'-dichloro-
                                   26979-17-9, Isonipecotaldehyde,
1-ethyl-4-phenyl-
                    26979-18-0, Isonipecotaldehyde, 4-phenyl-1-propyl-
26979-19-1, Isonipecotaldehyde, 1-butyl-4-phenyl-
                                                    26979-20-4,
Isonipecotaldehyde, 1-isopropyl-4-phenyl-
                                            41616-43-7, Ethanol,
2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]-
                                               68279-84-5,
Isonicotinanilide, 3',4'-dichloro- 91639-95-1, Isonipecotaldehyde,
4-phenyl-, hydrochloride
                          91959-33-0, Cinnamamide, \alpha-cyano-p-[(2-
                             92644-79-6, Isonipecotaldehyde,
hydroxyethyl) methylamino] -
1-(2-hydroxyethyl)-4-phenyl- 92651-64-4, Isonipecotaldehyde,
4-phenyl-1-propenyl- 93881-26-6, Isonipecotaldehyde, 4-phenyl-, picrate
93990-38-6, Isonipecotaldehyde, 1-(N,N-diethylglycyl)-4-phenyl-
93990-39-7, Isonipecotaldehyde, 1-(2-morpholinoethyl)-4-phenyl-
93990-45-5, 1-Piperidineacetamide, N,N-diethyl-4-formyl-4-phenyl-
93994-24-2, Propionic acid, 3-bromo-, 2-[N-methyl-p-[(p-
nitrophenyl)azo]anilino]ethyl ester 93994-52-6, Propionic acid,
2-chloro-, 2-[N-methyl-p-[(p-nitrophenyl)ażo]anilino]ethyl ester
93999-33-8, Isonipecotaldehyde, 1-[2-(diethylamino)ethyl]-4-phenyl-
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94093-88-6, Isonipecotaldehyde, 1-(2-cyanoethyl)-4-phenyl-
Propionic acid, 3-iodo-, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl
        94373-38-3, Isonipecotaldehyde, 1-[2-(dimethylamino)ethyl]-4-
ester
phenyl-
          94431-60-4, Isonipecotaldehyde, 1-[3-(diethylamino)propyl]-4-
          94801-62-4, Isonipecotaldehyde, 1-(3-cyanopropyl)-4-phenyl-
94861-18-4, Isonipecotaldehyde, 1-[3-(dimethylamino)propyl]-4-phenyl-
94864-58-1, Isonipecotaldehyde, 4-phenyl-1-(2-piperidinoethyl)-
94864-74-1, Isonipecotaldehyde, 1-(N,N-diethyl-\beta-alanyl)-4-phenyl-
94997-59-8, Isonipecotal dehyde, 1-(2-morpholinoethyl)-4-phenyl-,
                  95125-60-3, Propionic acid, 3-chloro-,
dihydrochloride
2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
                                                       95126-29-7.
Isonipecotaldehyde, 1-[2-(diethylamino)ethyl]-4-phenyl-, dihydrochloride
95555-89-8, Isonipecotaldehyde, 1-(N,N-dipropylglycyl)-4-phenyl-
95814-65-6, Isonipecotaldehyde, 4-phenyl-1-(2-piperidinoethyl)-,
                  95956-04-0, Cinnamic acid, 2-[N-methyl-p-[(p-
dihydrochloride
nitrophenyl)azo]anilino]ethyl ester
                                      96064-42-5, Isonipecotaldehyde,
                                      96271-80-6, Isonipecotaldehyde,
1-(N, N-dipropyl-\beta-alanyl)-4-phenyl-
1-[2-(dimethylamino)ethyl]-4-phenyl-, dipicrate
                                                  96275-84-2,
Isonipecotaldehyde, 1-[2-(dibenzylamino)ethyl]-4-phenyl-
                                                           96310-54-2,
Isonipecotaldehyde, 1-[3-(dimethylamino)propyl]-4-phenyl-, dipicrate
96416-51-2, Isonipecotaldehyde, 1-[3-(diethylamino)propyl]-4-phenyl-,
dipicrate
            96765-59-2, Isonipecotaldehyde, 1-[2-(dibenzylamino)ethyl]-4-
phenyl-, dipicrate
                     96977-46-7, Isonipecotaldehyde, 1-(N,N-dimethyl-
                      97017-98-6, Isonipecotaldehyde,
\beta-alanyl)-4-phenyl-
1-[2-(benzylamino)ethyl]-4-phenyl-
                                     97020-65-0, Isonipecotaldehyde,
1-(N, N-dimethylglycyl)-4-phenyl- 97078-82-5, 3-Butenoic acid,
2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
Isonipecotaldehyde, 1-methyl-4-phenyl-, picrate
                                                  97297-70-6,
Isonipecotaldehyde, 1-(N,N-dipropylglycyl)-4-phenyl-, picrate
97495-02-8, Isonipecotaldehyde, 1-(2-cyanoethyl)-4-phenyl-, hydrochloride
97595-13-6, 4-Formyl-1-isopropyl-1-methyl-4-phenylpiperidinium iodide
97595-14-7, 4-Formyl-1-methyl-4-phenyl-1-propylpiperidinium iodide
98131-84-1, Isonipecotaldehyde, 1-[2-(benzylamino)ethyl]-4-phenyl-,
                  98132-78-6, 1-Piperidineacetamide, 4-formyl-N, N-dimethyl-
dihydrochloride
4-phenyl-
            98347-93-4, 1-Butyl-4-formyl-1-methyl-4-phenylpiperidinium
         99691-47-1, Diethyl[[(4-formyl-4-phenylpiperidino)carbonyl]methyl
iodide
]methylammonium iodide
                         99800-82-5, 1-(N,N-Diethylglycyl)-4-formyl-1-
methyl-4-phenylpiperidinium iodide
                                     100768-79-4, 4-(2-Carboxyethyl)-4-
methylmorpholinium chloride, 2-[N-methyl-p-[(p-
nitrophenyl)azo]anilino]ethyl ester 100978-46-9, Pyridinium,
1-(2-carboxyethyl)-, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
100978-47-0, Pyridinium, 1-(2-carboxyethyl)-, nitrate,
2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
                                                        101123-68-6,
Isonipecotal dehyde, 1-(N,N-dimethyl-\beta-alanyl)-4-phenyl-, picrate
101521-43-1, Pyridinium, 1-(2-carboxyethyl)-, bromide,
2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
                                                        101521-77-1,
Pyridinium, 1-(2-carboxyethyl)-, iodide, 2-[N-methyl-p-[(p-
nitrophenyl)azo]anilino]ethyl ester
                                     104878-93-5, Pyridinium,
1-(2-carboxy-2-chloroethyl)-, nitrate, 2-[N-methyl-p-[(p-
nitrophenyl)azo]anilino]ethyl ester
   (preparation of)
97078-82-5, 3-Butenoic acid, 2-[N-methyl-p-[(p-
nitrophenyl)azo]anilino]ethyl ester
   (preparation of)
97078-82-5 HCAPLUS
3-Butenoic acid, 2-[N-methyl-p-[(p-nitrophenyl)azo]anilino]ethyl ester
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